

and/or printer.

The server computer system 103, like the personal computer system, includes a CPU, input devices, and output devices.

5 The server computer system also includes memory and storage devices 104, which store, for example, databases. The server computer system 103 runs an operating system and a program implementing a method according to the present invention. The personal computer system 101 and the server computer system  
10 103 communicate via a communications link 102, such as, a modem, T1 line or POTS line, the Internet, and a T1 line.

**OVERALL SYSTEM FLOWCHART:** Figure 2 illustrates a flow chart of a program for executing a method according to the present invention. In the example embodiment, the program determines the risk of developing CAD and ways to modify the risk of developing CAD. It should be noted that this program may be implemented for any disease for which there are known risk factors and practice guidelines. Once the program is accessed via the Internet, e.g., by a user using a browser, a login section, which is described in detail below (Figure 3), is executed (step 300). The login section determines whether a user is a first time user, a registered follow-up user, or a doctor whose patient is a user that completed a probability of diagnosis section 800. If the user is a first time user (step 25 201), a preliminary assessment of chest pain section 400, which is described in detail below (Figure 4), is executed. If the user is a registered follow-up user (step 202), the follow-up user is queried whether there has been a significant  
30 change in his or her symptoms since the last time the user accessed the program (step 203). If there has been a significant change in the follow-up user's symptoms, then the preliminary assessment of chest pain section 400 (Figure 4) is executed. If there has not been a significant change in the  
35 follow-up user's symptoms, then the risk factor collection section 500 (Figures 5A-5E), which is described in detail below, is executed. If the user is a doctor whose patient has

completed probability of diagnosis section 800 (Figure 8), then doctor's section 900, which is described in detail below (Figure 9), is executed.

5 Preliminary assessment of chest pain section 400, described in detail below (Figure 4), assesses a user's experience with chest pain. If preliminary assessment of chest pain section 400 determines that an existing chest pain is acute (step 204), then 911 section 1200, which is described in detail  
10 below, is executed (see Figure 3). If preliminary assessment of chest pain section 400 determines that there is no chest pain or the chest pain is not acute, and the user wants to learn about risk factor modification (RFM) (step 205), then risk factor collection section 500, which is described in  
15 detail below (Figure 5), is executed. If the user does not want to learn about RFM, the user is invited to return and the program is ended.

20 Risk factor collection section 500 collects information on the user's physical characteristics, lifestyle and medical history. After risk factor collection section 500 is performed, risk factor summary section 600 is executed. The risk factor summary section 600 provides the user with a personal list of risk factors for developing CAD. If it is  
25 determined in risk factor collection section 500 that the user had recent coronary artery disease (CAD) (steps 206, 208), then the user is advised to see a physician (step 210) and queried if the user would like to learn about RFM (step 216). If the user wants to learn about RFM (step 216), a RFM section  
30 1100, which is described in detail below (Figure 11), is executed. If the user does not want to learn about RFM, the program is exited and the user is invited to return.

35 If risk factor collection section 500 determines that the user does not suffer from CAD and chest pain (steps 206, 207), then the user's risk of developing CAD is calculated in section 700. If risk factor collection section 500 determines that

the user had a CAD event that was not recent (step 206, 208) and the user would like to discuss the chest pain (step 209), then probability of diagnosis section 800, which is described in detail below (Figure 8), is executed. If the user has had a CAD recent event (step 208) and does not want to discuss his chest pain (step 209, then step 216 is executed as discussed above.

Probability of diagnosis section 800 determines whether the user chest pain is, for example, noncardiac, atypical angina, or typical angina. Probability of diagnosis section 800 also determines whether the angina is stable and the risk that the chest pain will lead to a heart attack and/or is CAD. If probability of diagnosis section 800 determines that the user is experiencing angina now or has a high or intermediate risk of having a heart attack (step 211), then 911 section 1200 is executed. If probability of diagnosis section 800 determines that there is a high or intermediate risk that the angina is CAD (step 212), then doctor's section 900 is executed. If the doctor wants a stress test (step 213), then doctor's section 900 is executed. If the user has CAD, the program proceeds to step 216 and continues as described above. If the user does not have a high or intermediate risk of having a heart attack (step 211), a high or intermediate risk that the angina will develop into CAD (step 212), and CAD (step 213), then risk calculation section 700 is executed. After the user's risk of developing CAD is calculated, the program executes step 216 and continues as described above.

In the doctor's section 900 information about left ventricular ejection fraction, stress imaging test results, exercise tolerance tests, and pattern of the CAD. After doctor's section 900, the user may either calculate his or her risk of developing CAD(700), view his or her course of action 1000, determine his or her probability of diagnosis 800, view the RFM section 1100, or exit the program. If the user has no chest pain and wants to view his or her risk of developing CAD